REMARKS

This is a full and timely response to the non-final Office Action mailed on September 27, 2004 (Paper No. 09082004). Claims 1-34 are pending in the present Application. Reconsideration and allowance of the Application and present claims are respectfully requested. Applicants should not be presumed to agree with any statements made by the Examiner regarding the rejections and objections made in the Office Action unless otherwise specifically indicated by Applicants.

I.   Response to Claim Objection and Claim Rejections Under 35 U.S.C. § 112

In the Office Action, claims 1-31 stand rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the enablement requirement. The Office Action alleges that the specification does not teach how the modes are determined, nor does it teach what particular device or section of the decoder has been determined.

Applicants respectfully submit that the claims are supported and enabled in the specification. Applicants would like to point out that Application Serial No. 09/736,661 ('661 Application), filed on December 14, 2000, which is incorporated by reference to the current Application provides support and written description to enable the alleged feature. In one embodiment, the determination of the modes is supported by communicating a first operation's required resources ('661 Application, page 21, lines 8-10) and based on a number of factors that include the first operation's required resources (e.g., the number of bytes that effectuates the transfer from system memory to media memory and a second operation's required resources (e.g., resources to decode B pictures). ('661 Application, page 21, lines 9-25).

Regarding the device or section of the decoder that has been determined, in one embodiment, the '661 Application discloses a resource manager 77 "that provides an interface to and coordination of resources of the DHCT 16 such as, for example, computing resources." ('661 Application, page 8, lines 14-16). The '661 Application further discloses that "[w]indow manager 59 communicates with resource manager 77 to coordinate available resources (such as display memory) among differnet resource-consuming processes." ('661 Application, page 9,

lines 16-19). In addition, the '661 Application dislcoses "[t]he SAM client 57A also interfaces with the resource manager 77 ... to control resources of the DHCT 16.

In one embodiment, the resource constrained state is instigated by applications instigating a resource-constrained state as a result of user interaction ('661 Application, page 17, lines 20-23, and page 26, lines 5-7); and viewer initiating interaction that demands resources ('661 Application, page 18, lines 8-10).

The Office Action alleged that claims 22 and 23 have no support in the specification. Specifically, the Office Action alleges that the feature of a life up table or history file is not mentioned in the current Application. Applicants respectfully submit that the feature is supported and described in the '661 Application on page 21, line 29 to page 22, line 5.

II.   Response to Claim Rejections Under 35 U.S.C. § 102

Claims 1-4, 6, 17, and 29 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 5,982,360 to *Wu, et al.* Applicants respectfully traverse this rejection.

A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.,* 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983).

A.   Claim 1

Claim 1, as amended, recites:

> A method in a video decoding system for adapting to resource constraints, said method comprising steps of:
> configuring a first resource access priority assignment to a plurality of resource consuming operations, each resource consuming operation being assigned a priority according to the first resource access priority assignment;
> configuring a second resource access priority assignment that is different than the first resource access priority assignment to the plurality of resource consuming operations, each resource consuming operation being assigned a priority according to the second resource access priority assignment;
> receiving a user input corresponding to performing a second media processing task, said second media processing task corresponding to a second amount of resource consumption, said

user input being received while performing a first media processing task according to the first configured resource access priority assignment, said first media processing task corresponding to a first amount of resource consumption;

    responsive to the user input determining whether a resource constrained mode is to be initiated to perform simultaneously the first and second media processing tasks; and

    responsive to determining that the resource constrained mode is to be initiated, initiating the resource constrained mode according to the second configured resource access priority assignment.

(Emphasis Added)

As an initial matter, Applicants respectfully submit that *Wu* fails to teach "responsive to the user input determining whether a resource constrained mode is to be initiated to perform simultaneously the first and second media processing tasks," as recited in claim 1. In fact, *Wu* does not teach initiating the constrained mode with a <u>prior</u> configured priority assignment for the plurality of respective operations but rather on a <u>real-time basis</u> configuring the priority to each operation sequentially. *Wu* apparently discloses as follows:

"At step 330, in a manner similar to that at step 320, CPU 120 determines whether or not service to another functional subroutine is demanded. For example, step 330 determines whether or not the CD data or MPEG bit stream as extracted from the external source by the CD interface 110 of the MPEG processor 100 should be parsed. <u>If the functionality is requested via proper flagging, the routine then proceeds to step 332 to raise the priority level for the CPU 120 to access the data bus MEM.sub.-- BUS. The priority is raised with respect to the original level as set up in step 310 when the routine was initially started.</u> Then, the routine proceeds to step 334, where a function call identified as function call B is performed by executing a corresponding function subroutine. Again, similar as was the case described above for the prior-art routine, dedicated functional operations required in the process of implementing the MPEG data decompression can be performed in this subroutine. For example, in this called subroutine, the operations include CPU 120 parsing the CD data obtained via the CD interface 110. The MPEG bit stream is also subject to system level parsing. The data corresponding to the audio compressed data obtained as a result of the MPEG parsing operation is then output to the memory resource 400. The video data is parsed, and then the initial video decoding performed by the CPU 120, and the obtained

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data is output to the video buffer 414 in memory 400. <u>Then, the program control is transferred to step 336, where the CPU priority for accessing the memory resource 400 over the data bus MEM.sub.-- BUS is lowered to normal</u>. After this step, the routine continues at step 340."

(Emphasis Added)

That is, *Wu* teaches <u>sequential</u> modification of operation priorities. The priority of a first operation in *Wu* is raised from its initial priority level followed by restoring the first operation's priority to its original level. A second operation's priority is not modified until after the first operation's priority is restored to its original level.

Consequently, Applicants respectfully submit that *Wu* fails to teach or disclose at least the feature of "responsive to the user input determining whether a resource constrained mode is to be initiated to perform simultaneously the first and second media processing tasks," as recited in claim 1. Thus, a *prima facie* case of anticipation cannot be established regarding claim 1. Applicants respectfully request that claim 1 be allowed and the rejection be withdrawn.

B.   Claim 29

Claim 29, as amended, recites:

> A video decoding system for adapting to resource constraints, said system comprising:
> logic for configuring a first resource access priority assignment to a plurality of resource consuming operations, each resource consuming operation being assigned a priority according to the first resource access priority assignment;
> logic for configuring a second resource access priority assignment that is different than the first resource access priority assignment to the plurality of resource consuming operations, each resource consuming operation being assigned a priority according to thesecond resource access priority assignment;
> logic for performing a first media processing task according to the first configured resource access priority assignment, said first media processing task corresponding to a first amount of resource consumption;
> *logic for performing simultaneously the first media processing task and a second media processing task according to the second configured resource access priority assignment, said second media processing task corresponding to a second amount of resource consumption*; and

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> logic for initiating a resource constrained mode according to the second configured resource access priority assignment for performing simultaneosly the first and second media processing tasks.

(Emphasis Added)

As mentioned above, *Wu* apparently teaches <u>sequential</u> modification of operation priorities. The priority of a first operation in *Wu* is raised from its initial priority level followed by restoring the first operation's priority to its original level. A second operation's priority is not modified until after the first operation's priority is restored to its original level. Consequently, Applicants respectfully submit that *Wu* fails to teach or disclose at least the feature of "logic for performing simultaneously the first media processing task and a second media processing task according to the second configured resource access priority assignment, said second media processing task corresponding to a second amount of resource consumption," as recited in claim 29. Thus, a *prima facie* case of anticipation cannot be established regarding claim 29. Applicants respectfully request that claim 29 be allowed and the rejection be withdrawn.

C.   Claims 4, 6, and 17

Because independent claims 4, 6, and 17 are allowable over the cited art of record, dependent claims 4, 6, and 17 are allowable as a matter of law for at least the reason that dependent claims 4, 6, and 17 contain all features and elements of their respective independent base claims. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Accordingly, the rejection to dependent claims 4, 6, and 17 should be withdrawn for at least this reason, among others.

II.   Response to Claim Rejections Under 35 U.S.C. §103

In the Office Action, claims 5, 7, 18-21, 24-25, 30, and 31 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Wu* in view of U.S. Patent No. 6,768,774 to *MacInnis, et al.* Claims 9-16, 18, 19, and 26-28 stand rejected under 35 U.S.C. § 102(e) as allegedly being unpatentable over *Wu* in view of U.S. Patent No. 5,844,620 to *Coleman, et al.*

In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the prior art reference must suggest all steps/elements/features of the claimed invention to one of ordinary skill in the art. *See, e.g., In re Dow Chemical*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

Because independent claims 1 and 29 are allowable over the cited art of record, dependent claims 5, 7, 9-16, 18-21, 24-28, 30, and 31 are allowable as a matter of law for at least the reason that dependent claims 5, 7, 9-16, 18-21, 24-28, 30, and 31 contain all features and elements of their respective independent base claims. *In re Fine*, supra. Accordingly, the rejection to dependent claims 5, 7, 9-16, 18-21, 24-28, 30, and 31 should be withdrawn for at least this reason, among others.

III.   Claims 32-34

Claims 32-34 were not mentioned in the Office Action and were not canceled in the previous correspondence with the USPTO. Claim 32, as amended, recites:

> A video decoding system for adapting to resource constraints, said system comprising:
>
> logic for configuring a first resource access priority assignment to a plurality of resource consuming operations, each resource consuming operation being assigned a priority according to the first resource access priority assignment;
>
> logic for configuring a second resource access priority assignment that is different than the first resource access priority assignment to the plurality of resource consuming operations, each resource consuming operation being assigned a priority according to the second resource access priority assignment;
>
> logic for configuring at least one resource consumption operation in second configured resource access priority assignment with an alternating first priority and a second priority;
>
> logic for performing a first media processing task according to the first configured resource access priority assignment, said first media processing task corresponding to a first amount of resource consumption; and
>
> ***logic for performing simultaneously the first media processing task and a second media processing task according to the second configured resource access priority assignment, said second media processing task corresponding to a second amount of resource consumption.***

(Emphasis Added)

As mentioned above, *Wu* apparently teaches sequential modification of operation priorities. The priority of a first operation in *Wu* is raised from its initial priority level followed by restoring the first operation's priority to its original level. A second operation's priority is not

modified until after the first operation's priority is restored to its original level. Consequently, Applicants respectfully submit that *Wu* fails to teach or disclose at least the feature of "logic for performing simultaneously the first media processing task and a second media processing task according to the second configured resource access priority assignment, said second media processing task corresponding to a second amount of resource consumption," as recited in claim 32. Thus, a *prima facie* case of anticipation cannot be established regarding claim 32. Applicants respectfully request that claim 32 be allowed and the rejection be withdrawn.

Because independent claim 32 is allowable over the cited art of record, dependent claims 33-34 are allowable as a matter of law for at least the reason that dependent claims 33-34 contain all features and elements of their respective independent base claims. *In re Fine*, supra. Accordingly, the rejection to dependent claims 33-34 should be withdrawn for at least this reason, among others.

IV.   Official Notice, Well-Known, and other similar Languages in the Office Action
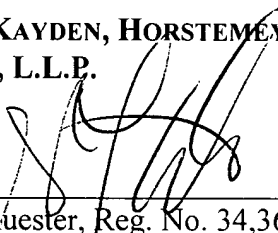
Applicants respectfully traverse all Office Notices and Well-known allegations made in the Office Action and submit such should not be considered well-known because the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support the conclusions. The Office Action alleges that "[a]t the time the invention was made it was well known in the art that, as taught by Wu and MacInnis, when a bus is shared amongst different components, each component must have a priority assigned to it." The Office Action also alleges that "[a]t the time the invention was made it was well known in the art that when bus bandwidth availability is inadequate a priority level must be assigned to each task requesting a bus transfer." The Office Action also included the text "Official Notice served" following the preceding finding of well known art. The Office Action also alleges that "[a]t the time the invention was made it was well known in the art that, as taught by Wu, when memory resources are shared amongst different components, each component must have a priority assigned to it." The Office Action also alleges that "[a]t the time the invention was made it was well [known] that user interaction would constrain system functions." The Office Action also alleges that "[a]t the time the invention was made it was well known that resource contraints are related to the resources available."

According to MPEP 2144.03, "It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." MPEP 2144.03 also states that "If such notice is taken, the basis for such reasoning must be set forth explicitly. The Office Action must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge." Accordingly, Applicants respectfully traverse the above conclusions and submit that the subject matter noted above should not be considered well known because the Office Action does not include specific factual findings predicated on sound technical and scientific reasoning to support the conclusions. Accordingly, Applicants submit that it has not been shown that the material asserted to be well known is capable of instant and unquestionable demonstration as being well-known.

CONCLUSION

Applicants respectfully maintain that the currently pending claims 1-34 are in condition for allowance. Should the Examiner have any comments or suggestions that would place the subject patent application in better condition for allowance, he is respectfully requested to telephone the undersigned attorney at (770) 933-9500.

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